a gate insulating layer contacting said [channel] semiconductor layer; and

a gate electrode adjacent to said [channel] semiconductor layer with said gate insulating layer therebetween,

wherein said [channel] semiconductor layer comprises a [non-single] crystalline silicon semiconductor layer containing oxygen, nitrogen or carbon at a concentration [5] 1 x 10^{19} atoms/cm^3 or less and said semiconductor layer shows a Raman shift at a wavenumber of 512 cm^{-1} or higher.

24. (Amended) The thin film transistor ~~of claim 23~~ wherein said [channel] semiconductor layer is formed on an insulating surface of a substrate.

25. (Three Times Amended) A thin film transistor comprising:

[an intrinsic channel] a semiconductor layer having an intrinsic or substantially intrinsic channel region;

a gate insulating layer contacting said [channel] semiconductor layer; and

a gate electrode adjacent to said [channel] semiconductor layer with said gate insulating layer therebetween,

wherein said [channel] semiconductor layer comprises a [non-single] crystalline silicon semiconductor layer containing oxygen, nitrogen or carbon at a concentration [5] 1 x 10^{19} atoms/cm^3 or less and a ratio of a full band width at half maximum (FWHM) of a Raman peak of said [channel] semiconductor layer to a FWHM of a Raman peak of a single crystalline silicon is less than 3.

26. (Amended) The thin film ~~transistor of claim 25~~ wherein said [channel] semiconductor layer is formed on an insulating surface of a substrate.

27. (Three Times Amended) A thin film transistor comprising:

[an intrinsic channel] a semiconductor layer having an intrinsic or substantially intrinsic channel region;

a gate insulating layer contacting said [channel] semiconductor layer; and

a gate electrode adjacent to said [channel] semiconductor layer with said gate insulating layer therebetween,

wherein said [channel] semiconductor layer comprises a [non-single] crystalline silicon semiconductor layer containing oxygen, nitrogen or carbon at a concentration [5] 1 x 10^{19} atoms/cm^3 or less and a peak intensity ratio Ia/Ic of said [channel] semiconductor layer is less than 0.4 where Ia represents a Raman peak intensity at a wavenumber of 480 cm^{-1} for an amorphous component of said [channel] semiconductor layer and Ic represents a Raman peak intensity at 521 cm^{-1} for a single crystalline silicon.

28. (Amended) The thin film transistor of ~~claim 27 wherein~~ said [channel] semiconductor layer is formed on an insulating surface of a substrate.

29. (Amended) The thin film transistor of ~~claim 23 wherein~~ said [channel] semiconductor layer comprises a laser annealed[, non-single] crystalline silicon semiconductor layer.

30. (Amended) The thin film transistor of claim 25 wherein said [channel] semiconductor layer comprises a laser annealed[, non-single] crystalline silicon semiconductor layer.

31. (Amended) The thin film transistor of claim 27 wherein said [channel] semiconductor layer comprises a laser annealed[, non-single] crystalline silicon semiconductor layer.

32. (Twice Amended) A thin film transistor produced by a process comprising the steps of:

forming on a surface a semiconductor film having an intrinsic or substantially intrinsic channel region [silicon semiconductor film] containing therein carbon, nitrogen or oxygen at a concentration of [5] 1 x 10^{19} atoms/cm^3 or less; and

irradiating said entire semiconductor film with a laser beam or a light having a strength equivalent to the laser beam with melting the semiconductor film to increase the degree of crystallinity thereof.

33. (Twice Amended) A thin film transistor comprising:

[an intrinsic channel] a semiconductor layer having an intrinsic or substantially intrinsic channel region;

a gate insulating layer contacting said semiconductor [channel] layer; and

a gate electrode adjacent to said semiconductor [channel] layer with said gate insulating layer therebetween;

wherein said [channel] semiconductor layer comprises a non-single crystalline silicon semiconductor layer containing oxygen at a

concentration 1 x 10^{19} atoms/cm^3 or less and said semiconductor layer shows a Raman shift at a wavenumber of 512 cm^{-1} or higher.

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34. (Twice Amended) A thin film transistor comprising:

[an intrinsic channel] a semiconductor layer having an intrinsic or substantially intrinsic channel region;

a gate insulating layer contacting said [channel] semiconductor layer; and

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a gate electrode adjacent to said [channel] semiconductor layer with said gate insulating layer therebetween,

wherein said [channel] semiconductor layer comprises a non-single crystalline silicon semiconductor layer containing oxygen at a concentration 1 x 10^{19} atoms/cm^3 or less and a ratio of a full band width at half maximum (FWHM) of a Raman peak of said [channel] semiconductor layer to a FWHM of a Raman peak of a single crystalline silicon is less than 3.

35. (Twice Amended) A thin film transistor comprising:

[an intrinsic channel] a semiconductor layer having an intrinsic or substantially intrinsic channel region;

a gate insulating layer contacting said [channel] semiconductor layer; and

a gate electrode adjacent to said [channel] semiconductor layer with said gate insulating layer therebetween,

wherein said [channel] semiconductor layer comprises a non-single crystalline silicon semiconductor layer containing oxygen at a concentration 1 x 10^{19} atoms/cm^3 or less and a peak intensity ratio Ia/Ic of

said [channel] semiconductor layer is less than 0.4 where Ia represents a Raman peak intensity at a wavenumber of 480 cm^{-1} for an amorphous component of said [channel] semiconductor layer and Ic represents a Raman peak intensity at 521 cm^{-1} for a single crystalline silicon.

Please add new claims 36-38 as follows:

--36. A thin film transistor produced by a process comprising the steps of:

forming on a surface a semiconductor film having an intrinsic or substantially intrinsic channel region containing therein carbon at a concentration of 1 x 10^{19} atoms/cm^3 or less; and

irradiating the semiconductor film with a laser beam or a light having a strength equivalent to the laser beam to increase the degree of crystallinity of the semiconductor film.

37. A thin film transistor produced by a process comprising the steps of:

forming on a surface a semiconductor film having an intrinsic or substantially intrinsic channel region containing therein nitrogen at a concentration of 1 x 10^{19} atoms/cm^3 or less; and

irradiating the semiconductor film with a laser beam or a light having a strength equivalent to the laser beam to increase the degree of crystallinity of the semiconductor film.

38. A thin film transistor produced by a process comprising the steps of: